

Application No.: 10/606,930  
First Named Inventor: Gerlach  
Amendment Dated: March 28, 2005  
Supplemental Amendment

**Remarks/Argument**

This Supplemental Amendment supplements the amendment filed Feb. 7, 2005.

Applicants respectfully request entry and consideration of this supplemental amendment, along with the remarks in the February 7, 2005 amendment.

Claims 2-23 are in the application.

Claim 2 is amended to recite that the ion-to-electron converter is positioned between the input screen and the scintillator detector. Similarly, amended claim 13 recites that the ion-to-electron converter is adapted to be positioned between an input electrode and the electron detector. Amended claim 18 recites that the ion-to-electron converter is not part of the input electrode. Amended claim 22 states that the ion-to-electron converter is not the input screen.

New claim 23 is similar to cancelled claim 1 and states that "the ion-to-electron converter being positioned between the input screen and the scintillator detector."

The Examiner states that on page 3 of the Office action that electrode 3 in Kondo performs the equivalent function of applicant's input screen. Applicant submits that electrode 3 is not equivalent to applicants' input screen because it cannot reasonably be used to attract ions. Kondo teaches in paragraph [0048] that: "The metal layer 3 functions as an electrode to which a positive potential is applied in order to accelerate and attract an electron beam. The metal layer 3 is formed thin enough to enable the electron beam to pass therethrough, and more specifically, having a thickness of 30-50 nm." Ions, being much more massive than electrons, could not pass through the thin metal layer and if electrode 3 attracted ions, the 30 nm to 50 nm layer would be

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quickly sputtered away. As shown in FIG. 12, the prior art multichannel plate 5 converts the ions to electrons first, and then the electrons are attracted to metal layer 3. While Kondo describes a solution for use in a mass spectrometers, applicants' Background section describes why systems that are useful in mass spectrometers have disadvantages when applied to FIB systems, and applicants' claimed invention overcomes many of those disadvantages.

#### CONCLUSION

Applicants submit that all claims remaining in the application are in condition for allowance, and Applicants respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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